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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

9314-7

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Erin C. Dutton

Date of Signature: June 7, 2007

Application Number

10/823,069

Filed

April 13, 2004

First Named Inventor

Greg A. Dunko

Art Unit

2618

Examiner

Lu, Zhiyu

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

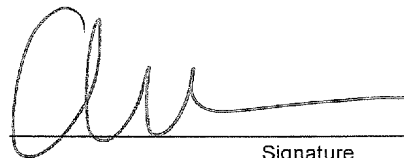
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record. 48,568
Registration number

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34



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June 7, 2007

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Greg A. Dunko
Serial No.: 10/823,069
Filed: April 13, 2004

Confirmation No.: 3975
Group Art Unit: 2618
Examiner: Lu, Zhiyu

For: **PORTABLE ELECTRONIC DEVICES INCLUDING MULTI-MODE
MATCHING CIRCUITS AND METHODS OF OPERATING THE SAME**

Date: June 7, 2007

Mail Stop AF
Commissioner for Patents
Box 1450
Alexandria, VA 22313-1450

**REASONS IN SUPPORT OF APPLICANT'S PRE-APPEAL
BRIEF REQUEST FOR REVIEW**

Sir:

This document is submitted in support of the Pre-Appeal Brief Request for Review filed concurrently with a Notice of Appeal in compliance with 37 C.F.R. 41.31 and with the rules set out in the OG of July 12, 2005 for the New Appeal Brief Conference Pilot Program, which was extended until further notice on January 10, 2006.

No fee or extension of time is believed due for this request beyond those requested in papers associated herewith. However, if any fee or extension of time for this request is required, Applicant requests that this be considered a petition therefore. The Commissioner is hereby authorized to charge any additional fee, which may be required, or credit any refund, to our Deposit Account No. 50-0220.

REMARKS

Applicant hereby requests a Pre-Appeal Brief Review (hereinafter "Request") of the claims finally rejected in the Final Action of March 7, 2007 (hereinafter "Final Action") and the Advisory Action mailed May 17, 2007 (hereinafter "Advisory Action"). The Request is provided herewith in accordance with the rules set out in the OG dated July 12, 2005.

Claims 1-3, 5-7, 9, 11-14, 16, 18-20, 22, 24 and 26-30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 6,862,432 to Kim (hereinafter "Kim"). *See* Final Action, page 2. Claims 31-33 and 35-36 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kim in view of United States Patent Application Publication No. 2004/0185920 to Choi *et al.* (hereinafter "Choi"). *See* Final Action, page 6. Applicant

respectfully submits that many of the recitations of the pending claims are not met by the cited references for at least the reasons discussed herein and in Applicant's previously filed Request for Reconsideration of May 7, 2007 (hereinafter "Applicant's Request for Reconsideration"). Furthermore, Applicant submits that the Final Action and/or the Advisory Action have not shown that the claims are anticipated and/or obvious in view of the cited references. Therefore, Applicant respectfully requests review of the present application by an appeal conference prior to the filing of an appeal brief. In the interest of brevity and without waiving the right to argue additional grounds should this Petition be denied, Applicant will only discuss the recitations of the independent Claims 1, 7, 14, 22, 31 and 35.

Independent Claim 1 recites:

A portable electronic device, comprising:
a housing;
an antenna associated with the housing; and
a multi-mode matching circuit operatively associated with the antenna, the multi-mode matching circuit being configured to operate in a first mode when the housing of the portable electronic device is in a first configuration and in a second mode when the housing of the portable electronic device is in a second configuration;
a sensor operatively associated with the multi-mode matching circuit, wherein the sensor is configured to detect the first configuration of the housing of the portable electronic device and/or the second configuration of the housing of the portable electronic device and wherein the multi-mode matching circuit is configured to adjust at least one parameter of the multi-mode matching circuit responsive to the first and/or second detected configurations of the housing of the portable electronic device, and wherein the at least one parameter is stored in a lookup table; and
a processor operatively associated with the sensor, the processor being configured to locate the at least one parameter in the lookup table using the first and/or second detected configuration of the housing of the portable electronic device as a pointer for an entry in the lookup table.

Independent Claims 7, 14 and 22 include similar recitations to the highlighted recitations of Claim 1. Applicant respectfully submits that at least the highlighted recitations of amended Claim 1 are neither disclosed nor suggested by any of the cited reference for at least the reasons discussed herein.

The Final Action states that Kim teaches all of the recitations of Claim 1. *See* Final Action, pages 2-3. In particular, Kim discusses a folder sensor 20 that determines if the housing is open or closed. A voltage value corresponding to the state of housing (open or closed) is stored in memory and the voltage is used to control the matching circuit. *See* Kim, column 4, lines 2-10. In other words, Kim discusses storing one or more voltages in a

memory. Thus, the solution discussed in Kim is specific to stored voltages and use of variable capacitance diodes.

In stark contrast, Claim 1 recites a multi-mode matching circuit that is configured to adjust at least one parameter of the multi-mode matching circuit and store the at least one parameter in a lookup table. Thus, the multi-mode matching circuit according to some embodiments of the present invention may include digitally programmable Resistors (R), Inductors (L), or Capacitors (C), which may be programmed based upon numerical values ("parameters") stored in a lookup table (not voltages). In other words, the parameters stored in the lookup table pointed to by the first and/or second detected configuration of the housing are the numerical values used to program the resistors, inductors and/or capacitors of the multi-mode matching circuit as needed.

The Advisory Action points to column 5, lines 18-64 as teaching the highlighted recitations of Claim 1. *See* Advisory Action, continuation sheet. As stated in Kim:

The manufacturer of the portable radio telephone stores voltages for optimal antenna impedance matching both in a case opened condition and case closed condition to the non-volatile memory 31....

See Kim, column 5, lines 18-21. Thus, as discussed above, Kim discusses stored voltages. In stark contrast, the adjusted at least one parameter recited in Claim 1 may be numerical values used to program the programmable Resistors (R), Inductors (L), or Capacitors (C) of the multi-mode matching circuit. Nothing in Kim discusses storing parameters as recited in Claim 1.

Accordingly, Applicant respectfully submits that independent Claims 1, 7, 14 and 22 are patentable over Kim for at least the reasons discussed herein. Furthermore, the dependent Claims are patentable at least per the patentability of the independent base claims from which they depend.

With respect to Claims 31 and 35, the Final Action admits that "Kim does not expressly disclose there are at least three configurations of the housing with corresponded [sic] three modes." *See* Final Action, page 6. However, the Final Action points to Choi as providing the missing teachings. *See* Final Action, page 6. Applicant respectfully submits that many of the recitations of these claims are neither disclosed nor suggested by the cited combination. For example, Claim 31

A portable electronic device, comprising:
a housing;

an antenna associated with the housing;
a multi-mode matching circuit operatively associated with the antenna, **the multi-mode matching circuit being configured to operate in at least three modes corresponding to respective first through third configurations of the housing.**

Claim 35 contains corresponding method recitations to the highlighted recitations of Claim 31. Applicant respectfully submits that at least the highlighted recitations of Claim 31 are neither disclosed nor suggested by the cited combination for at least the reasons discussed herein.

Choi discusses a method and apparatus for detecting a position of a folder in a rotation touch phone having a camera. *See Choi*, title. As discussed in Choi, this reference discusses a phone having four states, which can be sensed by three sensors. *See Choi*, Abstract. As illustrated by Table 1 of Choi, the sensed states are used to determine which elements of the phone should be turned on and/or off. Nothing in Choi discloses or suggests a multi-mode matching circuit being configured to operate in at least three modes corresponding to respective first through third configurations of the housing as recited in Claim 31.

Furthermore, Applicant respectfully submits that there is no motivation or suggestion to combine the cited references as suggested in the Final Action. The Final Action, states:

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate at least three opening positions and modes taught by Choi et al. into the portable electronic device of Kim, in order to provide more modes with auto-detection.

See Final Action, page 6. Applicant respectfully disagrees. If the statement in the Final Action were adequate to sustain the Office's burden, then anything that would "provide more modes with auto-detection" would be rendered obvious. This cannot be the case. Accordingly, the statement in the Final Action with respect to motivation does not adequately address the issue of motivation to combine as discussed in *In re Sang-su Lee*. Thus, it appears that the Final Action gains its alleged impetus or suggestion to combine the cited references by hindsight reasoning informed by Applicant's disclosure, which is an inappropriate basis for combining references.

In response to Applicant's arguments, the Final Action states:

Kim already teaches a portable electronic device having a multi-mode matching circuit operatively corresponding to two configurations of the housing. The only thing missing is having a third mode. And Choi et al. teach a portable electronic

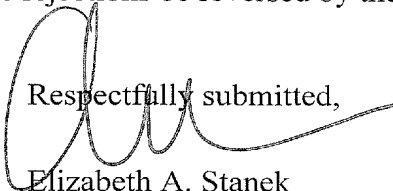
device having three configurations of the housing, which can also be detected by magnetic sensors. So, it would have been obvious to one of ordinary skill in the art to recognize that the portable electronic device of Kim is also capable of having a third configuration of the housing and a corresponded third mode impedance matching in light of Choi et al. for expanding housing configuration and optimizing impedance matching.

See Advisory Action, continuation sheet. Applicant respectfully disagrees. Choi uses the detection of the housing configuration to determine which elements of the phone should be turned on and/or off. Kim discusses impedance matching using voltages determined by whether the phone is opened or closed. These are completely different. Nothing in Choi, Kim or the combination thereof would motivate one of skill in the art to combine the references as suggested in the Final Action and/or the Advisory Action. The Office located Choi by using Applicant's disclosure as a road map, which is clearly improper.

Accordingly, Applicant respectfully submits that independent Claims 31 and 35 are patentable over the cited combination for at least these reasons. Furthermore, the dependent claims are patentable over the cited references at least per the patentability of the independent base claims from which they depend.

Accordingly, for at least these reasons, Applicant respectfully submit that the Final Action and/or Advisory Action fail to show that the claims of the present application are anticipated and/or obvious in view of the cited references and, therefore, request that the present application be reviewed and that the rejections be reversed by the appeal conference prior to the filing of an appeal brief.

Respectfully submitted,

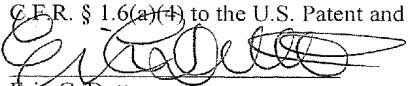

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Erin C. Dutton